

AMENDMENTS TO THE CLAIMS

The following listing of claims contains all claims that are, or ever were, in the present patent application. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1-5 (canceled).

6 (currently amended). ~~The process of claim 1~~ A process for creating a porous polymeric body of desired shape, comprising the steps of:

- a. selecting a polymer;
- b. identifying a first solvent that is capable of substantially dissolving a solid form of the polymer;
- c. identifying a second solvent that does not substantially dissolve the polymer in solid form, but instead merely swells the solid polymer;
- d. providing at least sufficient first solvent to said polymer as to substantially dissolve the polymer in the first solvent to form a solution;
- e. adding a quantity of the second solvent to the solution, whereupon an entire volume of the solution begins to gel;
- f. continuing the adding of the second solvent until a viscosity of the gel increases to a point where the gel is suitable for shape-forming;
- g. shape-forming the gel; and
- h. removing the first and second solvents from the gel, wherein a biologically active agent is mixed with the polymer and first solvent prior to addition of the second solvent.

7 (currently amended). ~~The process of claim 1~~ A process for creating a porous polymeric body of desired shape, comprising the steps of:

- a. selecting a polymer;
- b. identifying a first solvent that is capable of substantially dissolving a solid form of the polymer;
- c. identifying a second solvent that does not substantially dissolve the polymer in solid form, but instead merely swells the solid polymer;
- d. providing at least sufficient first solvent to said polymer as to substantially dissolve the polymer in the first solvent to form a solution;
- e. adding a quantity of the second solvent to the solution, whereupon an entire volume of the solution begins to gel;
- f. continuing the adding of the second solvent until a viscosity of the gel increases to a point where the gel is suitable for shape-forming;
- g. shape-forming the gel; and

h. removing the first and second solvents from the gel, wherein a biologically active agent is mixed with the second solvent prior to addition to the first solvent/polymer solution.

8 (currently amended). ~~The process of claim 1~~ A process for creating a porous polymeric body of desired shape, comprising the steps of:

- a. selecting a polymer;
- b. identifying a first solvent that is capable of substantially dissolving a solid form of the polymer;
- c. identifying a second solvent that does not substantially dissolve the polymer in solid form, but instead merely swells the solid polymer;
- d. providing at least sufficient first solvent to said polymer as to substantially dissolve the polymer in the first solvent to form a solution;
- e. adding a quantity of the second solvent to the solution, whereupon an entire volume of the solution begins to gel;
- f. continuing the adding of the second solvent until a viscosity of the gel increases to a point where the gel is suitable for shape-forming;
- g. shape-forming the gel; and
- h. removing the first and second solvents from the gel, wherein a biologically active agent is mixed with the gel prior to removal of the first and second solvents.

9 (currently amended). ~~The process of claim 1~~ A process for creating a porous polymeric body of desired shape, comprising the steps of:

- a. selecting a polymer;
- b. identifying a first solvent that is capable of substantially dissolving a solid form of the polymer;
- c. identifying a second solvent that does not substantially dissolve the polymer in solid form, but instead merely swells the solid polymer;
- d. providing at least sufficient first solvent to said polymer as to substantially dissolve the polymer in the first solvent to form a solution;
- e. adding a quantity of the second solvent to the solution, whereupon an entire volume of the solution begins to gel;
- f. continuing the adding of the second solvent until a viscosity of the gel increases to a point where the gel is suitable for shape-forming;
- g. shape-forming the gel; and
- h. removing the first and second solvents from the gel, wherein a biologically active agent is incorporated within the pores of the polymeric body after removal of the first and second solvent.

10 (Original). The process of any of claims 6, 7, 8 or 9, wherein the biologically active agent is selected from one or more of the following: physiologically acceptable drugs, surfactants, ceramics, hydroxyapatites, tricalciumphosphates, antithrombogenic agents, antibiotics, biologic modifiers, glycosaminoglycans, proteins, hormones, antigens, viruses, cells or cellular components.

11-13 (canceled).

14 (currently amended). ~~The process of claim 12,~~ A process for creating a porous polymeric body of desired shape, comprising the steps of:

- a. selecting a polymer;
- b. identifying a first solvent that is capable of substantially dissolving a solid form of the polymer;
- c. identifying a second solvent that does not substantially dissolve the polymer in solid form, but instead merely swells the solid polymer;
- d. providing at least sufficient first solvent to said polymer as to substantially dissolve the polymer in the first solvent to form a solution;
- e. adding a quantity of the second solvent to the solution, whereupon an entire volume of the solution begins to gel;
- f. continuing the adding of the second solvent until a viscosity of the gel increases to a point where the gel is suitable for shape-forming;
- g. shape-forming the gel; and
- h. removing the first and second solvents from the gel, wherein the polymer comprises a polyurethane, and further wherein the first solvent comprises tetrahydrofuran, and the second solvent comprises at least one solvent selected from the group comprising consisting of p-dioxane, dimethyl sulfoxide and o-xylene.

15-17 (canceled).

18 (currently amended). ~~The process of claim 17,~~ A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

- a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;
- b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;
- c. placing the gel in contact with at least one other material; and
- d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the other material provides reinforcement to the porous polymer, and further wherein the other material is in the form of reinforcing threads.

19 (currently amended). ~~The process of claim 15~~ A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

- a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;
- b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;
- c. placing the gel in contact with at least one other material; and

d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the other material is in the form of reinforcing rings.

Claim 20 (currently amended): The process of claim 16, A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;

b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;

c. placing the gel in contact with at least one other material; and

d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the porous polymeric body comprises a prosthesis, and further wherein said other material aids in attaching the prosthesis to host tissue.

21 (currently amended). The process of claim 15, A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;

b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;

c. placing the gel in contact with at least one other material; and

d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the other material is biodegradable, and further wherein the other material is in the form of a suture.

22 (currently amended). The process of claim 15, A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;

b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;

c. placing the gel in contact with at least one other material; and

d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the other material is biodegradable, and further wherein the other material is in the form of a tack.

23 (currently amended). ~~The process of claim 16-~~ A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

- a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;
- b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;
- c. placing the gel in contact with at least one other material; and
- d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the other material is a biologically active agent.

24 (Original). The process of claim 23, wherein the biologically active agent is selected from one or more of the following: physiologically acceptable drugs, surfactants, ceramics, hydroxyapatites, tricalciumphosphates, antithrombogenic agents, antibiotics, biologic modifiers, glycosaminoglycans, proteins, hormones, antigens, viruses, cells or cellular components.

25-27 (canceled).

28 (currently amended). ~~The process of claim 26-~~ A process for creating a composite body comprising a porous polymeric body using a gel enhanced phase separation technique, the process comprising the steps of:

- a. substantially dissolving a selected polymer in a suitable first organic solvent to form a solution;
- b. adding a suitable second solvent to the solution that causes an entire volume of the solvent/polymer solution to thicken into a gel;
- c. placing the gel in contact with at least one other material; and
- d. removing the first and second solvent, thereby leaving a porous polymer and the at least one other material, wherein said porous polymer and said at least one other material are mechanically bound to each other, wherein the selected polymer comprises a polyurethane, and further wherein the first solvent comprises tetrahydrofuran, and the second solvent comprises at least one solvent selected from the group ~~comprising~~ consisting of p-dioxane, dimethyl sulfoxide and o-xylene.

29-32 (canceled).